ABSTRACT

A device for clamping a rod to stop undesired axial and/or rotative movement between the rod and the device. The device comprises a pressure unit and a clamp unit which may be provided either as an integral unit or as separate though integrated units adapted to be mounted in a spaced relationship. The rod extends through and is movable relative to a bushing fixed within the clamp unit, the bushing having a radially resilient center section normally sized to permit movement of the rod axially and/or rotatively therein. The device includes a hydraulic clamping system having an actuating piston in the pressure unit which normally is held under fluid pressure in one position but which is movable under spring pressure toward a second position should the fluid pressure inadvertently be lost or selectively released or otherwise substantially reduced. Such movement of the actuating piston toward its second position will result in the generation of pressure in the hydraulic clamping system, which pressure is amplified and transmitted to the clamp unit and applied to the bushing to radially deflect its center section inwardly into clamping engagement with the rod to stop movement between the rod and the clamp unit. The center section of the bushing will remain clamped on the rod until such time as sufficient fluid pressure is applied to the actuating piston to move it back to and hold it in its first position in contravention to the spring pressure, such piston movement relieving pressure in the hydraulic clamping system and clamp unit and permitting radial expansion of the center section of the bushing to release the rod for movement relative to the clamp unit.